

**AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES
MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS**

1.-5. (Canceled)

6. (Currently amended) A permanent-magnet excited synchronous motor, comprising:

a stator having a plurality of tooth coils providing a pole coverage of 85%; and

a rotor with a plurality of poles interacting with the stator and constructed to dampen at least one of the harmonics of the rotor field selected from the group consisting of both the fifth harmonic and seventh harmonic of the rotor field,

wherein at least one of the rotor and stator has a skew of which with respect to the synchronous motor is between half of 3/5 of a slot pitch and 60% of a slot pitch with respect to the synchronous motor, and

wherein the rotor has a pole coverage of between 85% and 90%.

7. (Currently amended) A permanent-magnet excited synchronous motor, comprising:

a stator having with a plurality of tooth coils providing a pole coverage of 80%, and

a rotor with a plurality of poles interacting with the stator and constructed to dampen at least one of the harmonics of the rotor field selected from the group consisting of both the fifth harmonic and seventh harmonic of the rotor field,

wherein at least one of the rotor and stator has a skew of which with respect to the synchronous motor is between half of a slot pitch and 0.4285 times 3/7 of a slot pitch with respect to the synchronous motor, and

wherein the rotor has a pole coverage of 80% ($\pm 10\%$).

8. (Currently amended) A permanent-magnet excited synchronous motor, comprising:
 - a stator having with a plurality of tooth coils providing a pole coverage of 85%, and
 - a rotor disposed for rotation in the stator and having a pole coverage of between 85% and 90%,
 - wherein a total combined skew between the rotor and the stator of 3/5 one-half of a slot pitch and 60% of a slot pitch is apportioned to the stator and the rotor for damping the fifth harmonic [[or]] and the seventh harmonic, or ~~both~~, of the rotor field.
9. (Currently amended) A permanent-magnet excited synchronous motor, comprising:
 - a stator having with a plurality of tooth coils providing a pole coverage of 80%, and
 - a rotor disposed for rotation in the stator and having a pole coverage of 80% ($\pm 10\%$),
 - wherein a total combined skew between the rotor and the stator of 3/7 one-half of a slot pitch and 0.4285 times a slot pitch is apportioned to the stator and the rotor for damping the fifth harmonic [[or]] and the seventh harmonic, ~~or both~~, of the rotor field.
10. (New) The permanent-magnet excited synchronous motor of claim 6, wherein the rotor comprises a plurality of permanent magnets and the permanent magnets are arranged or magnetized in an axial direction of the rotor so as to provide a desired rotor skew.
11. (New) The permanent-magnet excited synchronous motor of claim 10, wherein the permanent magnets are selected from the group consisting of thin plate magnets, ring-shaped magnets and cup-shaped magnets.

12. (New) The permanent-magnet excited synchronous motor of claim 7, wherein the rotor comprises a plurality of permanent magnets and the permanent magnets are arranged or magnetized in an axial direction of the rotor so as to provide a desired rotor skew.
13. (New) The permanent-magnet excited synchronous motor of claim 12, wherein the permanent magnets are selected from the group consisting of thin plate magnets, ring-shaped magnets and cup-shaped magnets.
14. (New) The permanent-magnet excited synchronous motor of claim 8, wherein the rotor comprises a plurality of permanent magnets and the permanent magnets are arranged or magnetized in an axial direction of the rotor so as to provide a desired portion of the total skew.
15. (New) The permanent-magnet excited synchronous motor of claim 14, wherein the permanent magnets are selected from the group consisting of thin plate magnets, ring-shaped magnets and cup-shaped magnets.
16. (New) The permanent-magnet excited synchronous motor of claim 9, wherein the rotor comprises a plurality of permanent magnets and the permanent magnets are arranged or magnetized in an axial direction of the rotor so as to provide a desired portion of the total skew.
17. (New) The permanent-magnet excited synchronous motor of claim 16, wherein the permanent magnets are selected from the group consisting of thin plate magnets, ring-shaped magnets and cup-shaped magnets.